



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,145	09/09/2003	David Alexander	IMMR-IMD0002D (034701-005)	1899
60140	7590	06/05/2007	EXAMINER	
IMMERSION -THELEN REID BROWN RAYSMAN & STEINER LLP			MUSSELMAN, TIMOTHY A	
P.O. BOX 640640			ART UNIT	PAPER NUMBER
SAN JOSE, CA 95164-0640			3714	
			MAIL DATE	DELIVERY MODE
			06/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/657,145

Applicant(s)

ALEXANDER ET AL.

Examiner

Timothy Musselman

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-20 and 34-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 is/are allowed.
- 6) ☒ Claim(s) 12,13,16,17,19,34,35,39 and 40 is/are rejected.
- 7) ☒ Claim(s) 14,15,20 and 36-38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

In response to the amendment filed 3/14/2007, claims 12-20 and 34-40 are pending. Claims 41-44 have been cancelled.

Claim Rejections - 35 USC § 103

The following is a quotation of the relevant portion of 35 U.S.C. 103 that forms the basis for the rejections made in this section of the office action;

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Claims 12-13, 16-17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey (US 5,800,179) in view of Fritsch (US 5,567,047).

[1] Regarding claims 12-13 and 17, Bailey discloses a capture mechanism configured to engage a peripheral device, and a sensing assembly to detect movement of the peripheral device while engaged. See col. 5: 25-35. Bailey fails to teach wherein the capture mechanism is a grasping member that closes around the peripheral device via an actuator that operates to close the grasping member in response to insertion of the peripheral device. However, Fritsch discloses a device for releasable connecting a peripheral device (a tool shaft) that includes these features. See col. 2: 45-55. Note that the clamp is spread apart by the conical surface of the inserted shaft, and the clamp is subsequently actuated to the closed position to which it is naturally biased (i.e. the clamping member itself acts as an actuator to close

the device around the peripheral object). Bailey also fails to teach wherein the grasping member is tubular in shape (claim 13), or wherein the grasping member includes a plurality of jaws to surround and engage the device. However, Fritsch also teaches of these features in col. 1: 50-59. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the tool grasping mechanism of Fritsch in the system of Bailey, in order to provide a quick and convenient manner in which to affix the medical instrument to the movement guide.

[2] Regarding claim 16, Bailey further discloses wherein the capture mechanism is disposed within the sensing assembly. See col. 5: 30-37.

[3] Regarding claim 19, Bailey fails to teach of an automatic capture and release mechanism to automatically actuate a capture mechanism comprising a plurality of jaws to engage the peripheral device. However, Fritsch teaches of this feature in col. 1: 54-59 (plurality of jaws), and col. 2: 45-67 (automatic capture and release). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the automatic capture and release functionality of the clamp of Fritsch in the system of Bailey, so as to allow for easy and convenient interchange of surgical tools in a simulated medical procedure.

Claims 34-35, and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey (US 5,800,179) in view of Jahrmarkt et al. (US 5,113,872).

[4] Regarding claims 34 and 35, Bailey discloses a method for simulating a medical procedure, comprising receiving a peripheral device configured as a medical instrument into a capture mechanism, the capture mechanism configured to engage the peripheral device. See col. 5: 23-36. Bailey fails to teach wherein the device is automatically engaged in response to a first movement of the peripheral device, wherein the grasping member allows the peripheral device to be inserted therein and automatically closes around the peripheral device to engage the peripheral device from the first

movement, and automatically releasing the peripheral device from the grasping member based on a second movement of the peripheral device, wherein the grasping member automatically opens in response to the second movement to allow the peripheral device to be released therefrom. However, Jahrmarkt discloses a device for engaging a medical instrument that teaches of this feature. See col. 5: 1-20. Note that in this citation it is described how the grasping member closes around the inserted instrument, providing frictional engagement as per claim 34. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the expanding and compressible grasping mechanism of Jahrmarkt in the system of Bailey, so as to allow for a quick grasping and releasing of the simulated surgical instrument.

[5] Regarding claims 39 and 40, Bailey discloses a system wherein a peripheral device configured as a medical instrument is inserted into a training device, but fails to teach of inserting the device into a tubular member having a cross sectional dimension, moving a spring from a first position to a different second position, thus reducing the cross sectional dimension of the tubular member based on the movement of the spring, and frictionally engaging the peripheral device while the cross section of the gripping mechanism is reduced, and releasing the peripheral device by increasing the cross-sectional dimension of the tubular member based on the movement of the spring from the second position to the first position (claim 40). See col. 5: 1-19. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the expanding and compressible grasping mechanism of Jahrmarkt in the system of Bailey, so as to allow for a quick grasping and releasing of the simulated surgical instrument.

Allowable Subject Matter

[6] Claims 14 and 15 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: Although the prior art teaches of a tubular member for grasping the peripheral device, they do not include

an actuator that elongates and compresses the tubular grasping member by use of a spring to expand or constrict (grasp or release) the grasping mechanism to grasp the peripheral device.

[7] Claim 18 is indicated as allowable. The following is a statement of reasons for the indication of allowable subject matter: Although the prior art teaches of engaging a peripheral device configured as a medical instrument within a sensing assembly in a medical trainer, there is no teaching wherein the capture mechanism comprises a plurality of jaws that are expanded by a conical expander to allow for insertion of the peripheral device, and wherein a spring biases the conical expander outside the capture mechanism, so that when the expander is removed, the jaws close and grasp the peripheral device.

[8] Claim 20 is objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: Although the prior art teaches of a plurality of a capture mechanism with a plurality jaws, there is no teaching wherein the plurality of jaws of jaws are actuated by a force applied by a lever associated with the movement of the peripheral device.

[9] Claims 36-38 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: Although the prior art teaches of a clamping mechanism that engages and releases a peripheral device based on a first and second movement of the peripheral device, there is no teaching wherein such a clamping structure comprising a plurality of jaws *releases* said peripheral device based on a *second movement* of the peripheral device, as per claim 36, and there is no teaching wherein said plurality of jaws is *automatically* operated by a lever (claims 37-38).

Response to Arguments

Applicant's arguments filed 3/14/2007 with respect to the references of Evenson, Randolph, and Sullivan have been fully considered and are persuasive. The rejections of claims 12-20, and 34-40 have been withdrawn accordingly. However, new grounds of rejection have been established for claims 12-13, 16-17, and 19.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy Musselman whose telephone number is (571)272-1814. The examiner can normally be reached on Mon-Thu 6:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto, can be reached on (571)272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TM

TM


Kathleen Mosser
Primary Examiner
Art Unit 3714